

# **LIGHT RAILWAYS**

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**McKenzie's Frazer Is. Tramway, Qld**

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## Light Railway Research Society of Australia Inc.

P.O. Box 21, Surrey Hills, Vic. 3127

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**Light Railways** Editor, Bob McKillop, 10A The Bulwark, Castlecrag, NSW 2068 (Phone 02 958-4516)

### CONTENTS:

Mungar Timber Tramways Qld,	3
John Kerr .....	3
From the Archives: McKenzie's Frazer Island	
Tramway, Qld .....	11
Timber and Gold Revisted,	
Norm Houghton .....	14
Book Reviews .....	17
Letters .....	19

### EDITORIAL

This issue of *Light Railways* has largely been typeset direct from computer files prepared on a personal computer word processing package, with significant time and cost savings. Contributors who prepare articles for submission to *Light Railways* using a word processor are requested to send a disk containing the files to the editor. We can handle either 5 1/4 in. or 3 1/2 in. disks prepared on most PC's using MS-DOS, although IBM compatible formats are preferred. Files should be converted to ASCII text format, unless the document was prepared using Wordcraft or MS Word. Please provide details of the computer used. Long articles should be broken up into several files.

Articles — long or short — and letters to the editor on various aspects of light railway history and operation are always welcome. I am particularly keen to obtain material from Tasmania, Western Australia and Queensland.

**Cover:** To complement the Queensland theme of this issue, Craig Wilson captured Isis sugar mill No.2 on a weed train on 20 September 1988. Built in 1950 (B/No. 411-0019), this locomotive is the only post-War John Fowler unit to operate on an Australian sugar tramway.

# THE MUNGAR TIMBER TRAMWAYS

by John Kerr

## Early History

The two dominant primary industries of the Mary Valley last century were timber getting and sugar growing. Both needed economical transport and both had entrepreneurs prepared to build their own private tramways before any government railways were constructed in the district. Within twenty kilometres of Maryborough lay the Yengarie sugar refinery owned by Tooth and Cran, and the Mary River sawmills owned by Ramsay and Company. Both built wooden-railed tramways in the 1870s, but only the line to the sawmill at Mungar used steam traction.

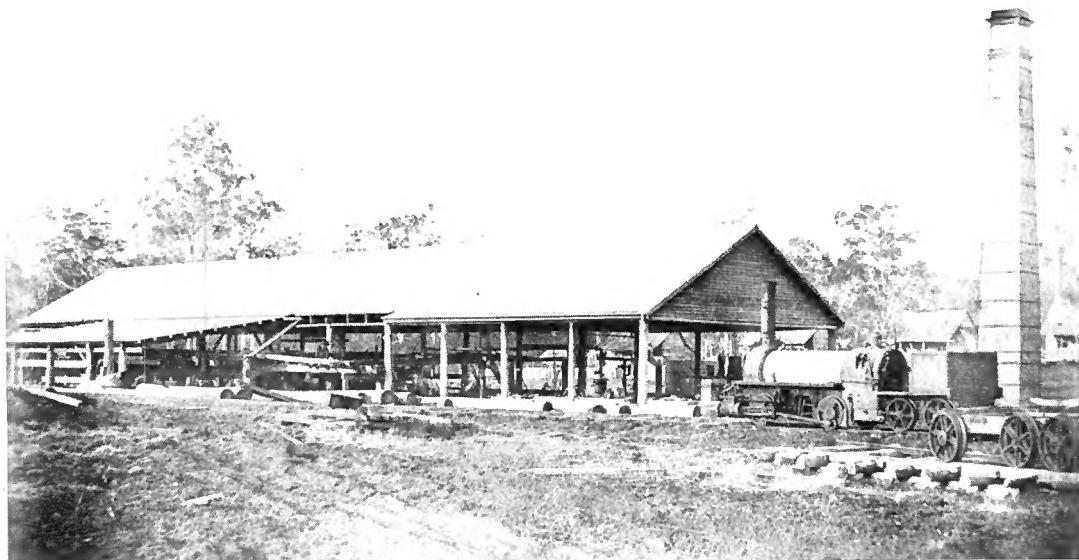
Ramsey Brothers came from Sydney, their first investment in the district being the purchase of the Iindah sugar mill and plantation in 1870. The mill had only been erected the previous year and was served by a short tramway connecting the mill with the river which was the main transport artery!

In 1873 the Ramsey Brothers were reputedly prime movers in a scheme to build a tramway from Tiaro — the head of navigation on the Mary River

— to Mount Allen to transport coal and copper. It was at the height of a copper boom which saw smelters built at Mount Coora and Mount Clara near Kilkivan. Although it was stated that a private bill was being prepared to submit to parliament to authorize the Mount Allen tramway, the scheme died<sup>2</sup>.

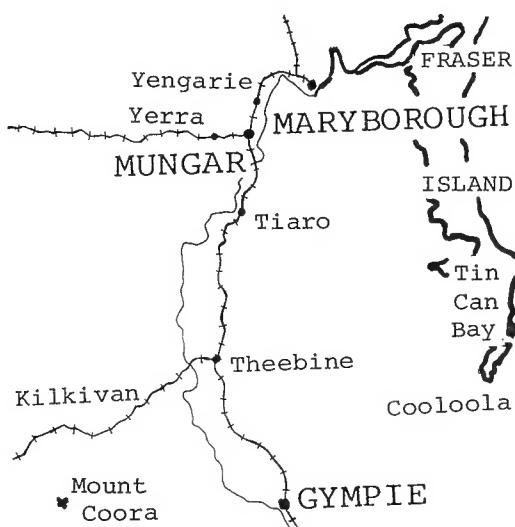
At the same time, in a more remote part of the district, Queensland's first privately owned "railway" was under construction. William Pettigrew, a surveyor who had become the colony's most prominent sawmiller, was constructing a wooden-railed tramway to link Poverty Point, on Tin Can Bay, with the stands of timber in the Cooloola rainforest. The first section of this line, operated by a small vertical-boiled locomotive, *MARY ANN*, built by Walker's Foundry of Maryborough, was officially opened on 30 October, 1873<sup>3</sup>.

Across the river from Iindah, Tooth and Cran built their own tramway in 1873, a horse-hauled line linking Yengarie and Irrawarra used for hauling



The Mungar Sawmill in 1888, four years after it closed. The rebuilt *DRAGON* also lies idle, showing its 0-4-0 wheel arrangement and four-wheel tender with timber bogies on the track in front and housing, half obscured, in the background.

John Oxley Library



firewood, sugar cane and, for a period, juice from a mill at Irrawarra for conversion into sugar at Yengarie<sup>4</sup>.

### Mary River Saw Mills

Ramsay Brothers entered the sawmill business in 1873. They appointed Henry Armitage in charge of the erection of the Mary River Saw Mills, which were located by a small creek closeby stands of pine and hardwood.

The sawmill quickly became a thriving community. Edward Armitage took over management from his brother Henry, and employed 47 men whose cottages and humpies surrounded the mill. The mill was extended in 1874 and the Mary River Sawmills provisional school opened in 1875.

The native name for the area, Mungar, often spelt Mungarr in early years, was adopted as the name for the sawmilling community in May 1877. This coincided with the completion of new sawmills in Maryborough which took the name of the Mary River Sawmills<sup>5</sup>. The new sawmill concentrated on pine and Mungar was restricted to hardwood<sup>6</sup>.

### Tramway Construction

In September 1873, Henry Armitage invited tenders for the construction of one and a half miles (2.4 km) of tramway, the firm supplying the material<sup>7</sup>. The new tramway connecting the mill with the wharf on the river, was complete at the beginning of 1874, except for the final section running down to the wharf. It was stated that provision would be made for a gangway to run the trucks conveying sawn timber right onto the punts or

schooners to discharge their loads for conveyance downstream to Maryborough. In the meantime, timber was unloaded on the bank above the wharf.

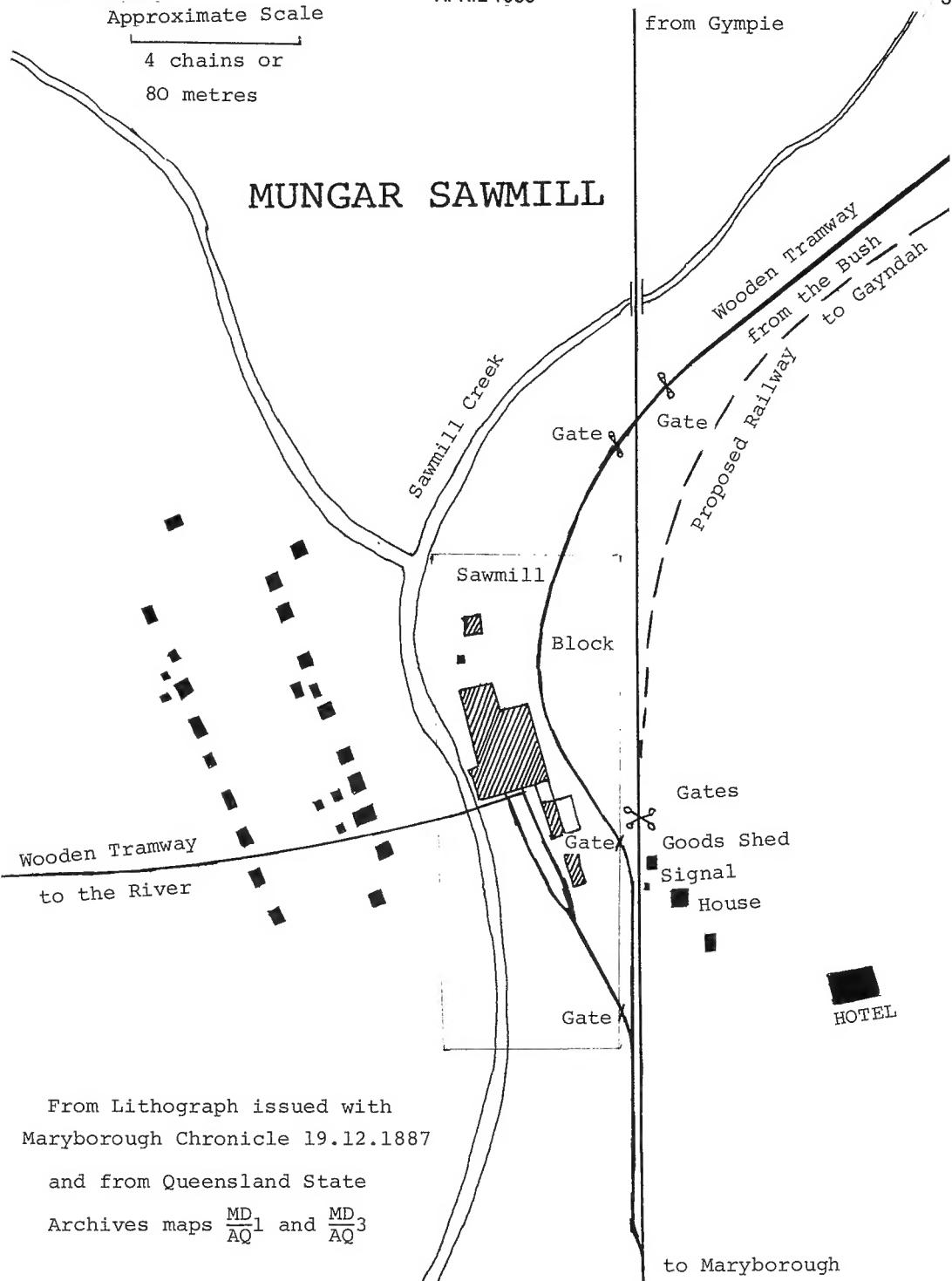
No iron was used on the tramway. The trees along the route had been felled, sawn into six feet lengths and laid as sleepers at five feet intervals, the line practically following the natural contour rather than the direct course in order to minimise earthworks. Notches were cut in the sleepers three feet apart and the rails of spotted gum were kept in place with hardwood wedges. The rails were of 3 by 5 inch (76 x 127mm) cross-section standing on edge. The space between the rails was filled with gravel and turf for the horses. One horse was reported in January 1874, pulling a single truck fitted with a small brake<sup>8</sup>.

Ramsey & Company announced in September, 1877, that they would construct a four-mile tramway to penetrate valuable timber country to the south-west<sup>9</sup>. Meanwhile Gympie — the goldfield which had saved the Queensland Treasury from defaulting on its railway loan repayment — had been clamouring for a railway to port. Noosa was the closest but shallow port, and the main supply line was through Maryborough. Parliament finally approved construction of the railway from Maryborough to Gympie on 7 August 1877 and the contract for the first section was let to JT Annear in February 1878. Because of the importance of the Yengarie sugar refinery and the Mungar sawmill, the railway did not take the direct route crossing the Mary River at Maryborough, but followed it upstream via Yengarie and Mungar, and crossed the river at Antigua. The railway was officially opened to Gympie on 6 August, 1881. Within 20 years, both the refinery and sawmill had closed, but legacy remained: the Maryborough railway station is a dead-end, now bypassed by through trains to the north.

Construction of Ramsay's private railway began about the same time as the government line and it was built to the same 3 ft 6 in (1067 mm) gauge<sup>10</sup>. As the sawmill was on the eastern side of the Government railway and the forests were on the western side, Ramsay's tramway had to cross the railway on the level. The siding at Mungar was extended to serve the sawmill within a few months of the line opening and there was a connection between the two systems, but there was no interchange of rolling stock. Gates were placed across the tramway in the fenceline either side of the railway, thus controlling the tramway to a degree — there was no station master until 1888 or 1889. Mungar Junction was then an attended station and the crossing was within station limits. There was a semaphore

Approximate Scale  
 4 chains or  
 80 metres

## MUNGAR SAWMILL



signal at the station, but no interlocking on the Maryborough Railway at the time the tramway was operating.

### Official Opening

Construction of Ramsay's tramway progressed rapidly in the early months of 1878 and the first section of four miles was completed by August<sup>11</sup>. The official opening was delayed until Friday 22 November when the locomotive was ready. Forty Maryborough gentlemen, including the mayor, were invited. As the Government railway was still incomplete, they had come by road and crossed the river by boat. Led by Armitage, they walked up from the wharf and were conveyed by tramway to the mill.

There HE King, member of parliament for Ravenswood and long associated with the Wide Bay district, was presented with a bottle of champagne and said "I have great pleasure in christening this engine the *DRAGON*." Like *MARY ANN*, it was constructed at Walker's Foundry, a small locomotive built cheaply. After whistles from the *DRAGON*, the party boarded the trucks. The mayor, reported the *Chronicle*, expressed his confidence in John Walker, builder of the locomotive, and in Messrs Jappe and Neilson, contractors for the tramline, and "seated himself on one buffer in front of the engine, and Mr Walker poised himself on the other." McLelland, the local photographer, recorded the event and the two gentlemen probably moved to more secure seats before the not altogether smooth journey began.

After an initial lurch, the *DRAGON* performed well at speed up to 10 miles per hour (16 kph) handling grades of up to 1 in 40 and through cuttings feet deep and across embankments of similar height. There were two loud whistles and a cry from the driver "Down Breaks" when a stray horse was encountered, but the main spectacle was the crossing of Eighteen Mile Creek, 2½ miles south-west of the mill. The bridge comprised 19 spans totalling 255 feet (76 metres) in length, each pier consisting of two hardwood piles driven into the sand and stepped in heavy hardwood sills, and stayed by diagonal braces.

At the terminus there was a short siding to the right, while the main line ended at a turntable. The trucks were pushed up the siding while the engine, after connecting up again at the head of the train, returned to Eighteen Mile Creek for a picnic lunch. The terminus was named Kingston at the suggestion of John Walker, who referred to the *DRAGON* as a mere picanniny. His firm wanted to build substantial locomotives for the Government railway, at a price one quarter above the ruling price in

Britain, but had not yet secured an order<sup>12</sup>.

### Operations

The tramway quickly settled down to regular operation, supplying the logs for the daily output of 12 000 super feet of hardwood timber from the Mungar mill. There were only three cuttings on the line, through the crowns of ridges, while depressions en route were filled, not by conventional means but by tiers of large rough (ie, unmilled) logs, arranged in pig-stye fashion and bound together for stability, thus providing a level base for sleeper and rails. All the engineering was done by Henry and Edward Armitage<sup>13</sup>.

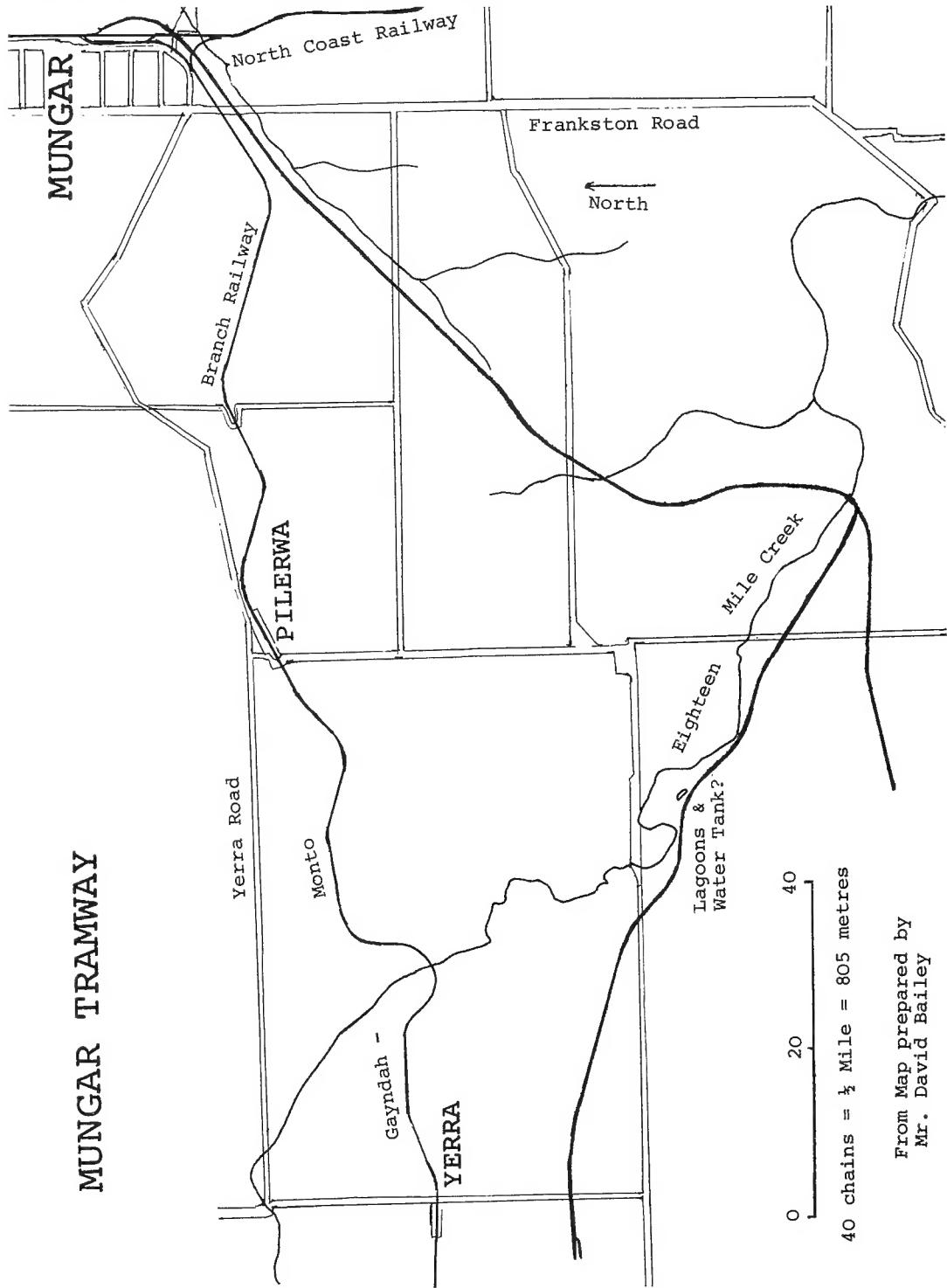
There was an attempt to derail the *DRAGON* and, in August 1879, the firm offered a ten pound reward — a substantial sum when wages were two to three pounds a week — for the conviction of the person who shifted a pair of block points on the line, thus endangering life and property. Five years later there was a serious accident when Edward Quirk fell under a timber truck and his leg had to be amputated<sup>14</sup>.

The proprietors were generous in making the tramline available for excursions. On St Patrick's Day 1879, horse races were held at the bush settlement at Kingston, and Ramsay & Company provided their engine and trucks at the disposal of spectators. Another such occasion was on 28 December 1880, when practically the entire population on Mungar departed at 10 am behind the "proud little *Dragon*" for a day's picnicking at a picturesque waterhole beside Eighteen Mile Creek, an hour's leisurely trip through the bush. After the opening of the Maryborough and Gympie Railway, more adventurous excursions were possible. In April 1882, the Maryborough Wesleyan Church choir and Sunday school held its annual picnic by taking the train 12 miles to Mungar, followed by a six mile trip along Ramsay and Co's private tramline<sup>15</sup>.

Like most other timber tramways, the route and length varied as timber was cut out. Within a few years of opening to Kingston, the line was extended to a terminus less than half a mile south of the later Yerra railway station on the Gayndah railway. The terminus was 2 1/2 miles (4 km) east-north-east of the crossing of Eighteen Mile Creek and, according to Bert Roots, writing to George Bond some 30 years ago, was known as Bellview<sup>16</sup>. The through journey was some 5 1/4 miles.

### Locomotive Rebuilding

As built, the *DRAGON* lasted only three years. After initial good service, it began to give trouble and Edward Armitage supervised its reconstruction at Mungar as an 0-4-0 with driving wheels 24



inches in diameter. (The description suggests an 0-4-4, but inspection of the photograph indicates the tender was counted in the loco's supposed eight wheels.) The new cylinders, eight inches in diameter, were cast at the local Tooth and Company's Vulcan Foundry and the piston had a 16 inch stroke. The rebuilt locomotive had link reversing gear, a Gifford's injector and a tender for water and fuel. It reentered service at the beginning of September, 1881<sup>17</sup>.

The locomotive apparently did venture onto government metals, for Armitage told the 1883 Royal Commission into Railway Management that, as rebuilt by Blanchard of the Vulcan Foundry, it could run 25 miles per hour (40 kph) on it and had drawn 84 tons up a grade of 1 in 165 on a five-chain (100 metre) radius curve. Why such trips were made — perhaps in an emergency to rescue a failed Government locomotive — remains a mystery, but the Maryborough Railway was well away from official supervision, with a gap of 100 miles between Brisbane and Gympie preventing the unexpected arrival of senior officials.

#### Financial Problems

In 1883 the Government appointed a Royal Commission into Railway Management. Its chairman was HE King, who had christened the *DRAGON* and after whom Kingston was named. On 17 June, when the Commissioners were travelling by special train to Gympie, they halted at Mungar to question Edward Armitage about the tramway. As a wooden tramway, he told the Commission, it had cost 458 pounds per mile, but the rails lasted only 12 to 18 months and "were a total failure. It costs a thousand pounds a year to keep this line in repair." Two men, he added, were constantly employed on

maintenance, turning and replacing rails. In four years they had relaid the line three times, despite having changed from spotted gum to ironbark. However, with a locomotive weighing eight tons making three return trips daily, wear was bound to be heavy. On the curves, iron rails had to be used, the partners having imported 13 tons of rails from Sydney two years previously.

The logs were carried on trucks consisting of two bogies, the log held in place by a bolster working on a central pivot. According to Armitage, logs as long as 66 feet (20 metres) had been hauled. The Railway Engineer, George Phillips, was acquainted with the line and, in 1895, recollected the problems encountered in keeping the locomotive from derailing on the wooden rails<sup>18</sup>.

The partners could not service their heavy debts. Government railway extensions tapping virgin forests combined with cheap imports glutted the timber market in the early 1880s. Ramsey & Company were overcapitalised and heavily in debt. The unsecured creditors agreed to accept a composition of ten shillings in the pound, and work at the sawmills resumed on 12 November 1883 after an interruption of several weeks<sup>19</sup>.

The revival did not last long. Despite having sold Lindah in 1879, their debts were huge, with £48,147 owed to secured creditors, chiefly the Queensland Investment and Mortgage Company (which held the mortgage over the sawmill in Maryborough) and the South Australian Land and Mortgage Company (to which Mungar had been mortgaged). The latter company entered possession and on 27 January 1885, the Mungar Sawmills were auctioned along with 2813 acres of freehold land. The only bid was of five pounds. The mortgagees were reportedly about to resume operations at the end of September,



The *DRAGON*, minus boiler, was later used as an engine at Hyne's sawmill in Maryborough. Here it is shown out of use in the mid-1950's on the sawmill scrap-heap.

GE Bond Collection



A cutting on the tramway about 3 km from Mungar, shown heavily overgrown with trees in late 1976.

John Kerr

but in May 1886, Mungar was still described as comatose<sup>20</sup>.

The situation was no better in November when Parliament approved construction of the first section of the Mungar to Gayndah railway. The mill, plant, white-washed workman's cottages and six-mile tramway lay idle, as they had been for two years<sup>21</sup>. The new railway, which opened to Broomweena on 29 July 1889, branched from the Gympie line just to the north of the timber tramway and ran parallel to the tramway for half a mile west-south-west, before it diverged on a west-north-westerly course. The fork line connection at Mungar, inserted in 1915, crossed the formation of the defunct tramway.

#### The Area Today

A number of members of the LRRSA and ARHS, including the author and David Bailey who mapped the route, visited the site in 1969<sup>22</sup>. The formation was clearly visible from near the North Coast Line to the Mungar-Tiaro Road, but was vague for several hundred metres where the land had become a dairy farm. After the formation entered

hilly wooded country, the majority of sleepers were still in place, except where the line had been carried over depressions on wooden cribbing. The cuttings were well preserved and one, more than 100 metres long, was nearly 1.5 metres deep at its maximum.

Although no wooden rails on this section, several lengths of steel strap used to protect the rails from wear were noted, including a neat offset lap joint which enabled the straps to be joined with a flush running surface. Measurements of the remaining sleepers confirmed that the gauge was three feet six.

Nothing remains of the long bridge over Eighteen Mile Creek, although a resident advised that part was standing until "fairly recent years". After crossing the creek, the line forked, the northernmost branch following Eighteen Mile Creek for 4 km to terminate within 800 metres of Yerra railway station. The exact terminus was not pinpointed as the formation gradually petered out without a definite end being located. The second branch — possibly the original line — appeared to be much shorter, running for a kilometre up a tributary gully



A northbound diesel freight approaches the point where the Mungar tramway once crossed the railway. The bridge in the background is on the forkline connecting the main line and the Gayndah branch.

John Kerr

of Eighteen Mile Creek. Sections of wooden rail, sleepers and steel strap railhead were observed on both branches.

### Acknowledgements

I would like to acknowledge assistance by David Bailey, George Bond and David Mewes.

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1. John Kerr, *Sugar at Maryborough: 120 years of challenge*, Maryborough Sugar Factory, 1987, p45-49.
2. *Maryborough Chronicle (MC)*, 7 October 1973, p28.
3. JD Kerr, The Calolli Creek and Thanna Railway, Tin Can Bay, *Queensland Heritage*, Vol.2 (1970) No.3, p14-20.
4. *Sugar at Maryborough*, p39-40.
5. *MC*, 29 August, 1874, p2 and July 17, 1877, p2.
6. *MC*, 22 May 1877.
7. *MC*, 16 September 1873, p3. Edward F Armitage, *Reminiscences of a Queensland pioneer* (Brisbane, 1926), described Ramsay as having no experience in sawmilling and his brothers management as extravagant, but a number of his statements are incorrect and coloured.
8. *MC*, 3 January 1874, p2.
9. *MC*, 29 September 1877.
10. *Gympie Times*, 13 April, 1878, quoting *Wide Bay News*.
11. *MC*, 11 May, 1878 p2 and 27 August p2. The latter describes the tramway as five miles long, presumably the newspaper reporter's estimate.
12. *MC*, 26 November, 1878.
13. *Mackay Mercury* 23 October, 1880; *MC*, 13 March 1879.
14. *MC* 9 August 1879; 31 May 1884, p2.
15. *MC* 25 March 1879; 4 January 1881; *Week* 22 April 1882, p370.
16. Correspondence and notes now in the possession of David Mewes, Algestre.
17. *MC* 24 September 1881. The engine is described as having two leading and two driving wheels, but Armitage described it as having eight wheels (*Votes & Proceedings*, 1883-84 p1679-80). I interpret the description as meaning the number of wheels on each side. See also Edward F Armitage, *op. cit.*
18. *Votes & Proceedings* 1883-84 p1679-80; *Queenslander* 6 July 1895.
19. *MC* 23 October 1883 p2, 2 November p2, 13 November p2.
20. *MC* 28 January 1885 p2, 21 September p2; *Queenslander* 22 May 1886 p812.
21. *Queensland Parliamentary Debates* 48, 352-4 and 50, 1514.
22. DG Bailey, *Sunshine Express* April 1969 p22 and July p71. A history of the line from a different perspective. RK Morgan's 'The mill at Mungar' appears in *Light Railways* No.56 (1976) pp17-20. Historical information about the tramway was published in note form in *Stack Talk* March 1972 p41-44, April p48-49 and June 1975 p65.



# FROM THE ARCHIVES: MACKENZIE'S FRASER ISLAND (QLD) TRAMWAY

submitted by Ian McNeil

In August 1920, Allen Taylor & Company Ltd's managing director, Mr FA Sargeant, visited Fraser Island with Mr MacKenzie and was sufficiently impressed to write a 10 page report on his visit there.<sup>(1)</sup> Extracts from this report are reproduced below:

In company with Mr MacKenzie I left Sydney on Tuesday 3 August and arrived at Maryborough on Friday morning about 5.30am. A launch was waiting there for us and after a run of about 2½ hours we reached Fraser Island jetty about 9.30am.

I must confess I was greatly surprised after learning from Mr MacKenzie about this sawmilling venture to find such a substantially built structure. Not being aware of what I was to see later I thought that the expenditure which this jetty must have involved was hardly called for, but after closer inspection of forest and sawmills and general outlook I came to the conclusion that the capital represented in the jetty was an exceedingly wise provision to make because it ensures safe berthing for large steamers and no delay will arise later on when charters are entered into for steamers to load their cargoes as they should receive quick despatch . . .

The jetty has been constructed on an elliptic plan mainly because the engineer discovered a much better foundation for the piles could be obtained than if built straight out from the shore. About 225 piles, ranging in length from 25ft to 60ft long have been used. The jetty was only decked on the end portion but as it is not wide it would not take long to complete. A tramline from the mill runs down the centre right to the edge of the wharf which is large enough to stack about 60,000ft super or more of timber ready for steamers.

A steamer can moor there with perfect safety although there is a little more difference in the rise and fall of the tides than in New South Wales. Still the jetty provides excellent loading facilities and will meet all requirements. It has been strongly built and as the piles were cheap Mr MacKenzie has not spared them but has used them freely. The girders, capwhales and bracings are all strong and as I said at the beginning no expense has been spared to make the structure strong and durable to last out the requirements of this timber proposition . . .

We travelled out by the loco and reached the edge of the forest — about 6½ miles . . . The tramline has been constructed in such a way that the grade is with the load. The line is well sleepered and has been properly fastened. The rails are 30lb to the yard. There is any amount of sand ballast available. There are no rocks or gravel on the island at all. The sleepers seem to bed well on the sand and settle down as if they were in cement. As mentioned, Mr MacKenzie has taken the precaution of putting in plenty of sleepers so that the cost of maintenance will be reduced

to a minimum.

Just about 6 miles out four or five of us got on an ordinary truck and ran in without any engine to within ¼ mile of the mills just where there is a pinch and here it is necessary for the loco to haul the trucks up to the log siding. The log siding has been placed above the mills so that the log can be rolled down, without the slightest effort, to the frame carriage on each mill. There is ample storage room for logs at the siding. A rake of about 6 or 8 trucks could be unloaded quickly. The facilities in this direction are excellent.

I have visited other tramlines in operation here and I only wish that our tramline at Port Stephens could be worked as cheaply as this one. It is estimated that logs can be taken from the farthest depot about 8 miles out (when the line has been completed) and landed at the mill at a cost of not more than 6d per 100 super feet. It costs us 2/- per 100 super feet to perform this work at Port Stephens so that it will be readily understood the line has been constructed in such a way that the logs are transported at the least possible expense. It makes the proposition rather attractive. The depots along the line have been placed in good positions and as it is Mr MacKenzie's idea to have 2 log haulers placed in position I anticipate he will be able to get his logs drawn to the line ready for the loco on a very reasonable basis also. The cost of snagging logs in from the forest, which is quite handy to the line should not be more than 1/- per 100ft super. So far as I could judge I reckon the cost of the logs to the sawmill to be as follows:

Royalty .....	1/6d
Snagging .....	1/0d
Felling .....	1/0d
Tramline .....	6d
Sundry Charges allowing depreciation .....	<u>1/6d</u>

Total per 100ft super .....

5/6d

As far as my knowledge goes there is no mill in New South Wales that can get the logs alongside the mill at such a cheap rate. The forest can be easily worked because no matter if they have 4 or 5 inches of rain the men can start work again as soon as the rain ceases. If the rain falls like that in our forests here the work is hampered and held up for a fortnight until the bush is thoroughly dry. There is nothing but sand everywhere on Fraser Island and, therefore, the bush is one of the easiest to work that I know of . . .

As Mr MacKenzie continues to work the forest it will be necessary to go on extending the line from place to place but the forest seems to lend itself easily to a tramline and from what I could see I do not think that anything like the trouble will be experienced that most of us have to contend with in New South Wales. The heaviest part of the work has been done and it will be easy to lengthen the

line as required. The grade after the 6 mile peg is somewhat against the load but having 2 locos Mr MacKenzie intends to use the geared Climax loco to feed the fast direct driven loco.

The direct driven loco appeared to be in good order but some repairs were necessary to the Climax. It is the same size as that at Port Stephens and when it has been overhauled should be able to work on the outer and feed the direct driven loco splendidly. I was greatly impressed with the layout of the line and think Mr MacKenzie is to be congratulated in getting such a good engineer for the work in the first place.

With regard to the mills, three have been erected and are ready for operation. The log supply was not available when I was there because I understand two of the mills have only just been finished. They anticipate three being ready for operation in another month or six weeks. Sites have been selected for four and they are situated side by side just below the log siding and it would be impossible to improve their position. There is a gentle slope from the mills down to the wharf and the tramline which runs along this slope takes the timber down a gentle grade to the wharf. The mills are well equipped, built strongly, well covered and quite equal to the best hardwood mill in New South Wales of the same capacity. They have been constructed similar to the small mills working along the coast of New South Wales. The output of each will range from 25,000 super ft to 30,000 super ft per week. It is an

excellent idea to put them side by side as they can compete with each other as to output etc.

Ample storage has been provided for the output of the mills. The stacks are placed handy to the tramline so that they can be loaded into the trucks quickly, consequently there will be no difficulty in loading a large quantity of timber rapidly. If the loading is ready on the wharf I do not think there will be any difficulty in loading a steamer carrying 100,000 super ft and despatching it within 24 hours after arrival . . .

The water supply for the boilers and locos is ample and good in my opinion as the water filters through the sand it is quite good. I understand also that Mr MacKenzie has tested and his engineer is perfectly satisfied with it. Both locos and mills have used it and it has proved to be excellent water for boiler purposes.

A considerable sum of money has been spent in the jetty, tramline, mills, log haulers, cottages, locos and trucks, launches and other facilities which have been provided. According to my rough valuations I estimate the total cost when all facilities and plant are taken into consideration will involve a sum of not less than 72,000 pounds . . .

The labour difficulties have been hard to overcome but I think Mr MacKenzie is gradually settling his people there and has made provision to take them over to Maryborough each weekend. I am inclined to think it will only be a matter of time before he will have quite a happy family of



MacKenzie's jetty on Fraser Island. The tramway on it is quite visible, and the curvature of the jetty, necessary to get a secure footing, is very evident.

Photo: John Oxley Library, Brisbane



Preparing to roll logs off the tramway trucks over the side of the jetty. The logs would then be floated across to mainland Queensland for milling. The Murray & Paterson locomotive is in the foreground. This photo was taken in the 1926-34 period, after MacKenzie had sold up and left Fraser Island.

Photo: John Oxley Library, Brisbane

employees around him there and he will experience no difficulty whatever if getting adequate labour to carry on the concern in a proper businesslike manner . . .

#### Author's Note

In 1918 the Sydney firm of H MacKenzie Ltd obtained the timber rights over 10,000 acres on Fraser Island, just off the Queensland Coast.<sup>(2)</sup>

The Company constructed a large jetty, a sawmill complex, and a 3 ft 6 in gauge steel railed logging tramway into the island's interior. At its maximum extent the tramway was about 9 miles long, including one or two short branches. It is believed that two steam locomotives were purchased from the defunct Great Northern Timber Company at Woolgoolga NSW; an 0-4-0ST Murray & Paterson (B/N 205 of 1886), and an A-class Climax geared locomotive built in 1913.

Large quantities of tallowwood, blackbutt and turpentine were harvested over the next few years, though one of the island's main timber resources, satinay, was barely touched as it was believed at that time that it was unsuitable for use as either a hardwood or a softwood. In later years satinay was the main species harvested.

MacKenzie's pulled out in 1926, apparently due to a combination of economic and labour problems<sup>(3)</sup> and their assets were auctioned in June 1926.<sup>(4)</sup> The jetty, tramway and rolling stock were purchased by the Queensland Forestry Department, who continued to operate the tramway with the Murray & Paterson loco until closure in about 1935. The Climax was acquired by GL Briggs & Sons Ltd around 1928 and regauged for their 3 ft 0 in tramway at Briggsvale, NSW.<sup>(5)</sup> The sawmill however, which was the only mill to operate on Fraser Island, was sold at the auction and henceforth all timber from the island has been shipped in log form to the mainland for processing.

#### References

1. FA Sargeant, "Report on Fraser Island Timber Proposition Owned and Controlled by H MacKenzie Esq of Glebe Island, Sydney", 3/8/20; Allen Taylor & Company Ltd Business Records, ANU Archives of Business & Labour, Deposit 44, Item 4, p310.
2. PJ Burrell, "Timber Tramways on Fraser Island". *Sunshine Express*, May 1975, ARHS Queensland Division.
3. Fred Williams, *Written in the Sand*, Jacaranda Press 1982.
4. *Sydney Morning Herald*, p18 26/5/26.
5. Ian McNeil, "Logging Tramways of the Dorrigo Plateau" *Light Railways*, No. 100, May 1988. <sup>34</sup>

# TIMBER AND GOLD REVISITED

by Norm Houghton

Since the publication of *Timber and Gold* in 1980, a vast range of lands files have been made accessible by the Public Record Office. During my earlier research there was no chance to delve into these files in a systematic way as the file reference numbers were unobtainable or the files were 'missing'. Now all this has changed, mostly for the better through centralised records and indexes, although some files are still missing, especially for the western end of the forest. On the basis of updated information from these files, I provide the following corrections and additions to the text of *Timber and Gold*.

The citation for the files are shown as Public Records Office Series Number, Box Number and File Number. Despite having a file for a logging site, it can still be difficult to interpret the data because of what is left unsaid in the correspondence. For instance, was the mill or tram actually put in or merely proposed? Which of two mills are being referred to? The correspondents obviously knew, but the modern researcher has difficulty in comprehending.

The gaps in the files leave many problems unresolved, these being, for example, the accurate plotting of the sequence and relationship of the mills of Haydens, Beach, Laver, Midgley and McGie for the small companies, and the fleshing out of the history of the large concerns of Wheeler, Blake and the Telegraph Company. Even using oral evidence and ground searching, the writer has not been able to confirm the routes of Wheeler's tramways on the north face of Mount Wilson and along Dog Creek, if in fact these were ever laid down.

## Band of Hope (p.28)

This mill was erected in 1868, not as earlier stated. The file reveals grand plans on the part of the proprietors — a large mill, a workforce of 80 and a tramway to the Melbourne Road. The tram was not built. The mill had water supply problems in summer that interfered with operations. In 1873, two years after the mill closure, Henry Cotttee (p.32) applied for the site comprising the mill sheds minus machinery and the timber stand, but the file records no subsequent action. (5257-4881 688/93)

## Bettridge (p.28)

This mill was sited 3.2 kms downstream from the present Brick House Road crossing of the East Moorabool River. (440-319, 919/93)

## George Graves (p.32-33)

The Lal Lal sawmill (p.36) referred to was owned by Messrs Graves and Newton (who had a sawmill at Mt Warrenheip) and was in fact the Bullarook Sawmill. It was operated by Sam Richardson, later the proprietor of the Utopia Sawn Shingle mill (p.35). (6605-0026, 479/59)

## McGie (p.33-34)

Henry McGie generally had three mill sites current at any one time and moved his crew around two of them. The Korweinguboora or East Moorabool mill scarcely worked at all during the 1870's.

John Sutherland's mill (p.36) was the same site as McGie's East Moorabool mill, only earlier. In later years, Joseph McGie and Sutherland ran the mill in partnership for shingle cutting. (5357-4887, 688/93)

## Thomas and Standfield (p.46)

This partnership comprised William Thomas, Thomas Standfield and William and R Emerson and was formed to work Graves and Fraser's mill on Pinchgut Creek near Barkstead. The exact location of John Priests' mill is not known. (440-343, 1674/47)

## Wheeler (p.50-56)

Wheeler's mill on Wallaby Creek was connected to the Comoora mill by a tramway. (6605-25, 224/59)

## Witnish (p.56)

William Witnish first entered the sawmilling trade in 1858 when he erected a mill on Fellmongers Creek, 14.5 kms north-west of Ballarat, near Kirk's Reservoir. His sons' last mill was sited on the eastern bank of the Werribee River, directly opposite their State Forest site and it worked from 1899 onwards. (6605-0020, 805/58)

## Orde (p.58)

When Thomas Orde took over Beach's mill on Paddys Gully he shifted it 270 metres north. He worked here until late 1888 and then moved operations to Glenlyon. (440-366, 2484/47)

## Hayden (p.66-68)

The files confirm that the tramway connected Hayden's mills on Wombat Creek and Clear Forest Creek. The tram was 1500 metres in length, ran almost due east-west and was installed in 1895. A bushfire at the end of 1897 damaged the line and it was then abandoned. (440-362, 2373/99)

**George Laver (p.68-70)**

The Public Record Office files reveal third and fourth mills and plot the sequence of each in more detail than in *T&G*. Laver's very first mill was at North Blackwood, allotment 73, Trentham Parish, and was established prior to 1871. A log extraction tramway was laid due south from the mill in 1871-72 for 1800 metres and then south-west for 1200 metres to the head of Billet Creek.

\*The entry for Clearwater Creek mill, Laver's second, remains unchanged.

The Billet Creek tramway was used for log extraction and although a mill site was taken out at the southern end of the tramline, it was used only as a log depot and a stable area. Logs were then taken right through to the mill in the north until a bushfire damaged the mill and tramway in 1876, when logs were redirected to a new mill on private property at East Trentham, north-west of the old mill, probably on Muir's old site.

Laver had earlier applied to build a log tramway on Muir's original survey, but it is not clear whether it was laid down. The files indicate that Laver had 800 metres of tram but do not state whether it was at Billet Creek or Axle Creek. The Axle Creek site was taken over by Will Christian after 1878. In 1878, Laver's Billet Creek site was transferred to Messrs Thorpe and Friedler and a mill erected there.

The remainder of the story as printed in *Timber and Gold* is unchanged, save to note that in 1884 Dockendorf and Hutchinson rebuilt the first 1200 metres of Laver's old access tram and laid a new line 2.4 km west to the Blackwood Road. Portions of this tram are shown on an old plan and the writer walked of the route in 1979 before ploughing obliterated the last remnants of the road bed in 1986. Dockendorf and Hutchinson also laid a log tram 1500 metres south to Billet Creek in order to extract logs that could not be hauled in by jinker.

When interviewing forest workers and logging contractors for *Timber and Gold*, the writer noted on several occasions that these modern forestry workers could not explain how the nineteenth century sawmillers managed to extract logs from almost impossible terrain without winches or access roads and tramways. The answer was to be found in the PRO files and was so obviously simple as to be

overlooked. The millers waited until summer had dried out the creeks and gullies and then ran their jinkers along these beds, pulling logs down to the creek and then taking them out downstream.

Dockendorf and Hutchinson's mill was upstream from their logging site so they needed a tramway. A bushfire destroyed the mill on 25 December 1885. It was rebuilt by new owners, Messrs Beach and Morris, in 1886 and the tram extended by another 2000 metres down to near the present Chettles Road crossing. The tram was used by subsequent owners until being declared abandoned in June 1900. (440-1029, 1459/47; 440-1029, 1463/47; 440-1046, 2356-8/99; 440-378, 2917/337; 440-337, 1365/99)

**Midgley (p.71-72)**

In the period from about September 1889 to 1890, Midgley's mill site on Ruth Creek was not worked at all. The proprietors moved the machinery to the earlier mill site closer to Trentham and used the Ruth Creek area for log extraction only. When Haydens bought out Midgleys in May 1890, they acquired a tramline and two mill sites, one with no machinery. (440-266, 572/93)

**Evans (p.74)**

The unmarked mill shown at the head of Whiskey Creek, south of Blackwood, is that of James Evans, 1884-1898.

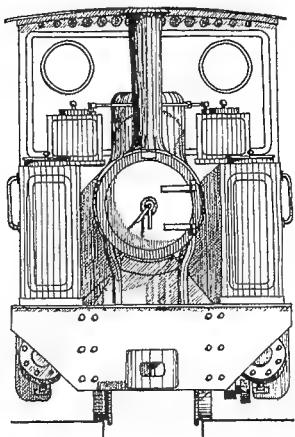
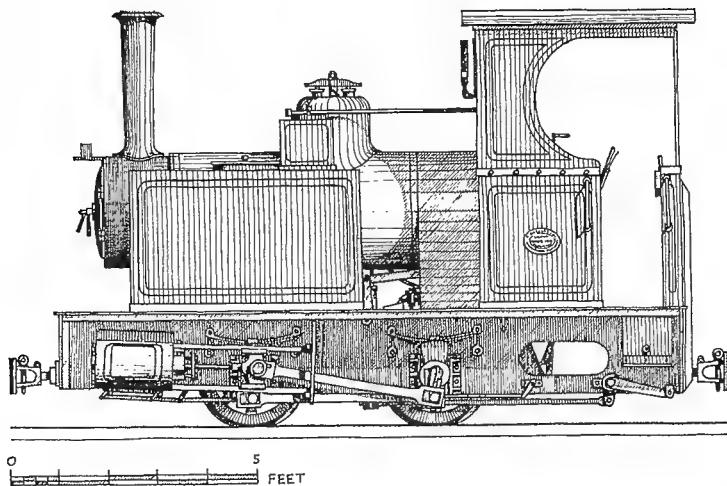
**Southern (p.74)**

William Southern's mill was sited at East Trentham off Chanter's Lane on allotment 59, Trentham Parish.

**James Muir & Co**

Initial research disclosed the existence of Muir's Axle Creek mill, but it could not be located or verified for the book. McPherson Brothers of Trentham erected a mill on allotment 69, Trentham Parish, during the 1860's. James Muir took over the company in 1870 or 1871 and surveyed a log extraction tramway south along a gully for 1800 metres to near the Campaspe River. It is not clear from the file whether the tram was built and the licensing lists do not show an entry for Muir. The site was later taken over by George Laver (1872-1878) and then William Christian (p.60). (440-102, 1459/47, 5878/71, 3977/71; Victorian Government Gazette 20 January 1870).





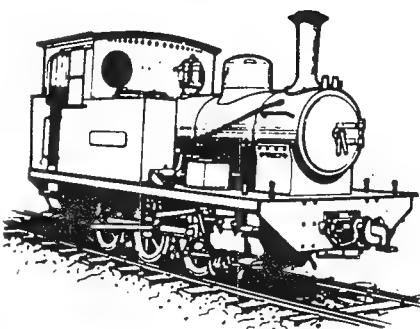
R.T. HORNE OCTOBER 1988

QUNABA SUGAR MILL, QUEENSLAND  
2'0" GAUGE LOCOMOTIVE, ANDREW BARCLAY 1419 OF 1915



SECV Ruston &amp; Hornsby 4wDM locomotive (B/No. 296070) at Bogong Creek Race Line, November 1987.

Photo: Ray Graf



## BOOK REVIEW

**THE ABT RAILWAY on Tasmania's West Coast**, by Lou Rae. 72 pp 210 x 295 mm with stiff cover (colour). Published by the author, PO Box 508, Sandy Bay, Tasmania, 7005, November 1988.

This book must not be regarded as the definitive history of the famous Mt Lyell Mining & Railway Company's railway linking the formerly remote town of Queenstown with the port of Strahan on Tasmania's rugged West Coast. Now alas, but a memory since its closure in mid-1963, this unique railway became a way of life and provided the essential link with the 'outside' world for the great copper mine.

The book is well researched and interestingly written, covering the railway's development, operation and final demise in eleven informative chapters as well as providing a pictorial history of the area. That the author is well qualified is proven in his 1983 publication, *A History of the Railways and Tramways on Tasmania's West Coast* and his experience as a bush-walker and photographer of the area. Some of his spectacular colour photographs adorn this volume.

Unfortunately, not all the colour illustrations have reproduced so well, some having a curious greenish or purple-blue tone and there are a few typograph-icals in the text. The book is profusely illustrated: some of never previously published scenes and there is a detailed map in colour.

This book, printed on high quality coated stock is bargain-priced at only \$16.00 (post free) from the author/publisher or from LRRSA Sales and similar outlets.

JLB

**CANE TRAIN: The sugar-cane tramways of Fiji**, by Peter Dyer and Peter Hodge. 178 pp 180 x 240mm hard cover. Published by The New Zealand Railway & Locomotive Society, Wellington, 1988. RRP \$NZ50.00.

*Cane Train* has been 25 years in the making. Ever since *Balloon Stacks* and *Sugar Cane*, published in 1961, sold out and became a collectors item, those who missed out have been waiting for an expanded and updated edition of Peter Dyer and Peter Hodge's excellent work. Most readers will be satisfied with the wait. The authors have produced a detailed description of the extensive sugar cane tramway networks which have served Fiji's sugar industry for over a century. For most visitors, the Fiji Sugar Corporation sugar trains offer a welcome 'toot' as they trundle past Nadi International Airport and the loading of cane in the fields onto small railway trucks is a memory of local rural life, but few come to learn more of the industry and its vital railway network.

Those who have an interest in the technical details of the sugar tramways, their locomotives, rolling stock and operations will find a wealth of details in this book, backed by Peter Dyer's excellent technical drawings and maps, and an extensive range of photographs, most by the authors. The text follows a similar structure to *Balloon Stacks*, with descriptions of the various mill tramway systems followed by chapters on the locomotives of different eras — Fowler, Hudswell Clarke, Clyde and EM Baldwin — rolling stock and tracks and structures. There is much additional material on early sugar mills, the Rewa railways (based on LR.77) and the

Navua railways (covered in *LR.78*) and other chapters have been brought up-to-date. The authors' personal descriptions of their journeys on various mill tramways in 1957 have been retained in the new edition. Those with a bent to technical details will find the locomotive lists (to 1983), dimensions and rolling stock registers presented in the appendices of particular interest.

*Cane Train* appears at a time when there is a growing interest in the history of the sugar industry and its associated railways in Fiji. Should current plans for the active promotion of the country's heritage in sugar come to fruition, it should gain a good market, although its price is beyond the spending power of most local people who will be intimately connected with the topic. However, its contribution to historical research is disappointing. Two important criticisms stand out. First, the authors fail to substantiate their facts with references to their source. The reviewer is familiar with the authors' detailed and painstaking research over many years, but nowhere do they offer clues as to how they went about their task or where others may check their facts. There is not even a

bibliography or a list of sources consulted. In several instances (eg, the identity of the Rarawai loco damaged by fire in 1981 and the Hudswell Clarke diesel scrapped in the 1980s) statements in the book differ from information published in *Light Railway News*. Probably the information in *Cane Train* is correct, but how do we check?

The second issue is the absence of a historical setting for the development of the railway system. We are given descriptions of early sugar mills and their tramways, of the activities of the Colonial Sugar Refining Company in establishing mills, but we learn nothing of why these things happened. There are references to early sugar pioneers, disputes between CSR and the government, industrial unrest, even that there were Indians involved in Fiji's sugar industry, but the reader is left frustrated that so little is offered about the fascinating history of Fiji sugar: the events, politics and people who shaped its destiny. Those who seek an in depth understanding of why Fiji's extensive railway came about and the role it played in developing the nation's major industry must await a more definitive work in this field.

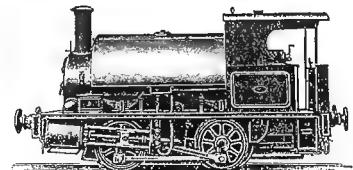
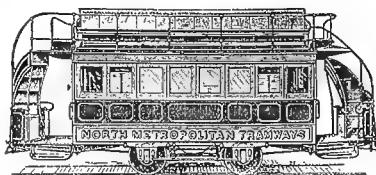
RFM



This photograph of Lautoka No.3 (John Fowler 9462/1902) shortly after the opening of the mill is featured on p93 of *Cane Train*. Archives of Business & Labour, ANU

# THE FALCON ENGINE & CAR WORKS, LIMITED

LOUGHBOROUGH.



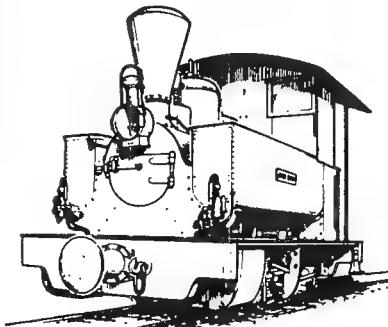
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SPECIFICATIONS, PHOTOGRAPHS, AND PRICES ON APPLICATION.



## LETTERS

### KOOWEERUP SAND LINES, LR.102

Responding to the photo on page 30 of *Light Railways* No.102, it is unclear if it was taken at Koo-wee-rup or not. It is evident that the gauge is less than the 3 ft stated and looks around 2 ft, which is the reported gauge of the two sand company lines in the area — the Plowright Brothers line and the Kooweerup Water Washed Sand Coy — both of which were supposed to use "Fordson" tractors.

In the local newspaper reports on the building of the lines, there is mention of a 'presentable bridge across the south-west main ketch drain' which could be the bridge shown in the photo. However, I have my doubts. Having looked at the site of the tramways, the main drain consisted of high artificial banks on each side, whereas in the photo it appears that the river is way below the ground level. It is also reported that the tractors used were made by Days, whereas the ones shown seem to be TACL units as illustrated on the back cover of LR.88. It could be that the photo might be one showing dam construction. Any other thoughts?

John Peterson  
WARRAGUL, Vic.

### THOMAS GREEN LOCOMOTIVE 1272/1883, LR.102

In LRN 62 and 64, and in *Light Railways* 102, reference is made by Ken Milbourne and Richard Horne respectively, to the Thomas Green vertical boiled locomotive (1272/1883) with which JS Lee began his timber tramway operations at Duck River in far North West Tasmania. In the course of my research in the Launceston *Examiner*, I have found a number of references to this locomotive and to the early years of Lee's tramway. These include the following (summarised):

- 22/11/1883. Preparations going on at Duck River for erection of sawmill.
- 20/12/1883. Schooner *Stephen* brings quantity of steel rails for tramway about to be laid down in connection with contemplated sawmill at Duck River. Another vessel is to follow with locomotive and additional material.
- 23/12/1884. JS Lee and family about to leave Somerset (Cam River) for Duck River, where he is erecting a large sawmill.
- 28/7/1885. A new sawmill is established at Duck River by Mr JS Lee. He has run a tramway for five miles to a valuable bed of timber.

**11/8/1885.** Lee's steam sawmill working. Substantial deep water jetty. Iron tramway worked by locomotive from mill to timber.

**14/2/1887.** Formal opening of Lee's mill at Duck River on 29 January 1887. 400 guests. Steam locomotive took guests for ride on tramway.

**22/10/1887.** Joseph S Lee owns Duck River sawmill and some 400 acres of land. 40 hp engine drives mill, which can turn out 3000 super feet of Blackwood or 6000 super feet of gum daily. Jetty one third of a mile across flats to the channel. 3 ft 6 in gauge tramway seven miles long runs from jetty south-west across heathy plain to mill (one mile) thence to timber beds. A locomotive by Green of Leeds runs at 10 mph with 20 logs per journey. Steam windlass hauls logs to tramway. Line is to be extended further five miles to south-east.

**7/1/1888.** Pier is 440 yards long. Steel-railed main line runs for over six miles from wharf to bush limit, with branches to left and right. The locomotive can run at 10 mph hauling 15-20 logs. Waste wood from mill is left along line for locomotive fuel. Portable steam log-hauler used.

**29/11/1889.** Mr Lee's tram runs from sawmill towards Christmas Hills.

**27/5/1890.** Mr Lee has 16 miles of light railway at Leedsville employing two locomotives. Pier is one quarter of a mile long.

**21/11/1890.** New country being opened up at back of Christmas Hills within one mile of Lee's steam tram, which will convey produce to Lee's jetty.

**31/3/1893.** Mr Lee's mill has made another start, but only on a limited scale because of lack of markets.

In addition, the *Burnie Advocate* reported on 5 February 1909 that the Lee brothers (sons of the late JS Lee) had 14 miles of tramline and sawmills at Leedsville and Trowutta. Lee's pier on the Duck River had been abandoned seven years earlier, when their traffic had been diverted to the new pier at Pelican Point. The line to the new Trowutta mill was laid with wooden rails and was worked by a locomotive with specially wide wheels hauling 18 tons of timber at little more than two miles per hour.

**Jim Stokes  
Curtin, ACT**

#### **IDENTIFICATION REQUIRED, LR.95, 99 AND 102**

Paul Simpson's letter in *LR.102* has prompted me to follow up this matter further. I spent a few days at Murwillumbah during November, 1974 in order to photograph the Condong Mill tramway in its last few weeks of service. During this time I met with members of the Byrne family, the then owners of the locomotive depicted on page 20 of *LR.99*, and was able to take a number of photographs of the loco, including one of the builder's plate. The plate reads "CALDWELL Engineering Aus

Marrickville".

The locomotive had been acquired from the Titanium Alloy Manufacturing Company, Kingscliff (a sand mining concern) in 1960 and worked a tramline on Byrne's farm, known as Riverside Plantation, where it was named *DOUG*. This tramline connected with the Condong Mill tramline at a place known as The Oak Avenue, a tree-lined section of the Pacific Highway. The loco was originally fitted with a John Fowler 2-cylinder petrol engine, the remains of which were lying under a tree on the farm at the time of my visit. This was replaced by a diesel engine from an International tractor by the Byrnes family. *DOUG* was placed out of use in 1968 and remained derelict on the farm until sold to Sea World in 1975.

I think that the locomotive was built by Caldwell Vale (or Purcell Engineering), as the location and style of fixing the plate would not lead me to suppose it had been placed there "as decoration". Unfortunately, there were no other means of identifying the loco and I cannot confirm if 646 is really the builder's number.

**David Mewes  
ALGESTER, Qld.**



**DOUG on Byrnes farm near Chinderah in November 1974.**

**DJ Mewes**

**COOTHARABA TRAMWAY, LR.52 AND 55**

In *Light Railways* No.55 (p. 11-15) we were able to supplement Mr RK Morgan's article "The Cootharaba Tramway" in *LR.52*.

Further research has elucidated a few more significant details of this tramway which operated in the Noosa area of south-east Queensland in the 1870s and 1880s. A series of articles by a travelling reporter in the *Brisbane Courier* of 5, 7 and 18 July, 1877 describes Cootharaba in some detail, with the article of 7 July covering the tramway. It was of 3 feet gauge. The line then was just under three miles long, and was wooden railed, not the 16 pound steel railed line that was laid in 1878.

The wooden rails were of 4 by 2 inches cross section, wedged into slots on the sleepers. Both pender and ironbark were used. The reporter noticed places where one rail was "as smooth as glass" and the rail on the other side was very much worn. He was told that the worn ones were ironbark and that they had to be replaced every six months, while the pender lasted two years and even then were not much worn. It was stated that only pender was being used for rails by 1877, and the relaying of the tramway by August 1878 in steel rail probably occurred to save repeated renewal of wooden rail. This suggests that much of the main tramline was built in 1876.

As we speculated earlier, the 1877 report confirms that the chief reason for constructing the line was the problem with bullock teams becoming bogged in wet weather. The sawmill was located in swampy country at the edge of Lake Cootharaba, although the swamp immediately around the mill was then being filled with sawdust to form a timber yard. Describing his trip on the tramway, the reporter stated that "at the outset we passed over a bridge or log culvert 349 yards in length, crossing the swamp". The sub-structure was of tea tree felled in the swamp. Stout girders were laid on these transverse logs and 9 by 5 inch sleepers laid at three feet intervals across the girders to hold the rail. The gap in between was slabbed and filled with gravel as ballast to provide a track for the horses. Beyond the swamp, the line passed through open grazing land with gum, bloodwood and mahogany and at 1.5 miles from the mill, skirted a dense scrub from which came supplies of pine and cedar.

The line had few curves, it being found that on curves sharper than 15 chain (300 metre) radius, the iron wheels of the trucks tended to mount the wooden rails and derail. No further trouble was experienced after the radius was increased to this minimum.

The object of the line was not speed but certainty. Previously the bullock teams were often idle in wet weather, but with the tramline the teams could continuously operate snagging logs out of the scrub to the nearest point on the tramway. The timber was mainly kauri pine, cypress and hoop pine.

Loading was achieved using a winch on a trolley which was anchored to the sleepers. The trams were described as 12 ton, suggesting that the rolling stock of the line comprised three trucks, each carrying a four ton log.

The line was constructed with few curves at a cost of under 300 pounds per mile. Mr Luya, the proprietor, was quoted as offering to make substantial branch lines anywhere in the colony on reasonably level country for 1000 pounds per mile. At the time there was considerable interest in Queensland in using cheap tramways instead of conventional railways to open up the country.

John and Ruth Kerr  
ST LUCIA, Qld.

**SOUTH AUSTRALIAN JETTY TRAMWAYS, LR. 64, 69, 95** The three articles by D Estell, K McCarthy, F Reed and myself identified some 25 locations where jetty tramways had been operated, mainly by the Department of Marine and Harbors (or its predecessors), over the years. David Mack of Adelaide has kindly sent me an extract of the 1915 Annual Report of the SAHB which shows that the situation was very much more complex than suggested.

The SAHB was responsible for both jetties and wharves at coastal towns, in the Port Adelaide area and on the River Murray. As at 1915, the report listed a total of 68 jetties (59 with railway tracks), 28 wharves at 14 locations (14 with railway tracks), together with 16 jetties described as "useless and abandoned". Among other information, the list showed length of jetties, gauge of track, number and capacity of cranes and number of trucks in use. Similar information was given for wharves, except that the number of trucks was not shown, presumably because they were served by the South Australian Railways (as were a limited number of jetties).

Cranes were identified as "F" or "P", together with capacity in tons. As a handful were shown as

steam or electric, one assumes that the remainder were hand-powered and the "F" meant fixed and "P" meant portable, ie a mobile railway crane. Both assumptions are borne out by personal observations in the 1960's and the evidence of old photographs. The information on the list may be summarised as follows:

*2ft 6in gauge*: 3 jetties: Cape de Couedic, Glenelg and Semaphore, with one truck each.

*3ft 3in gauge*: 1 jetty at American River, Kangaroo Island with no trucks in 1915.

*3ft 6in gauge*, 48 jetties: 42 with trucks (of which 22 used hand powered railway cranes and one, Port Germein, used steam locomotives). Total number of trucks 272, hand powered railway cranes 21. In addition, 6 wharves at 3 locations with 8 hand-powered railway cranes. Those jetties using 10 or more trucks were Arno Bay (13), Ardrossen (10), Edithburg (24), Franklin Harbor (Cowell) (12), Port Germein (26), Port Hughes (12), Stansburg (New) (11) and Tumby Bay (14).

*4ft 0in gauge*: 1 jetty at Normanville with 2 hand-powered railway cranes.

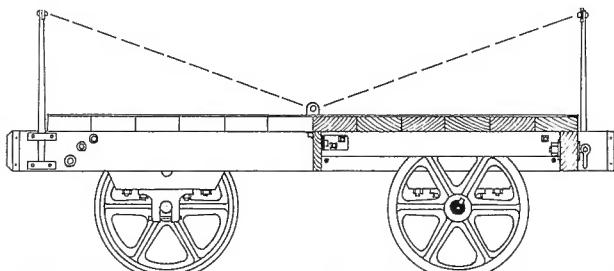
*5ft 3in gauge*: 5 jetties with 27 trucks and 4 hand-powered railway cranes. These were at Port MacDonell (11 trucks, 2 cranes), Robe (6 trucks, 1

crane), and Victor Harbour (3 jetties with 10 trucks and 1 crane). In addition, 8 wharves at 5 locations with 3 steam railway cranes (one at Outer Harbor, 2 at Murray Bridge), 2 electric railway cranes (at Murray Bridge) and 6 hand-powered railway cranes (2 at Port Adelaide, 3 at Goolwa and one at Murray Bridge).

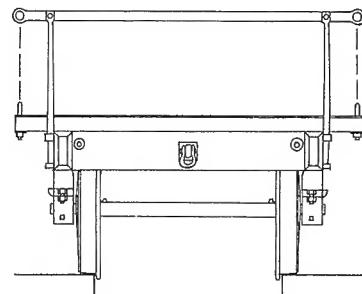
I enclose a drawing of the 3ft 6in gauge standard jetty truck of 1882 that I have based on the Engineer-in-Chief's original (see *LR* 69 p28 for details).

The photographs on pages 8 and 9 of *LR* 64 show that these trucks have changed little in 90 years, save for more substantial dumb buffers and removal of the wrought iron and posts, crossbars and associated chains. Also enclosed are photographs of a 5ft 3in gauge hand-powered railway crane at Goolwa in 1962 (wheels by Lloyds, Foster & Co) and 10t CoCo steam railway crane at Port Pirie in 1965 (one of a pair built for the SAHB at Port Adelaide in 1925 by Chambers Scott & Co of Motherwell, Scotland and transferred to Port Pirie after the SAR's broad gauge reached there in 1937).

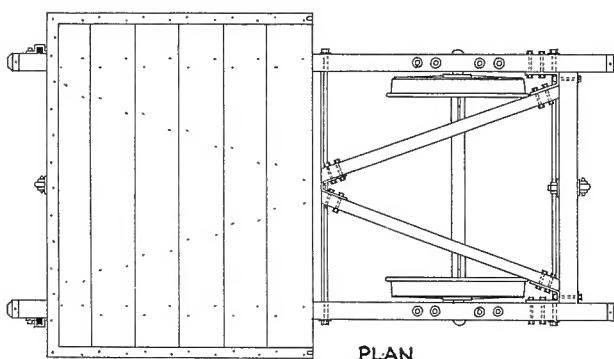
**Richard Horne**  
**South Croydon, Surrey, UK**



SIDE ELEVATION / SECTION



END ELEVATION

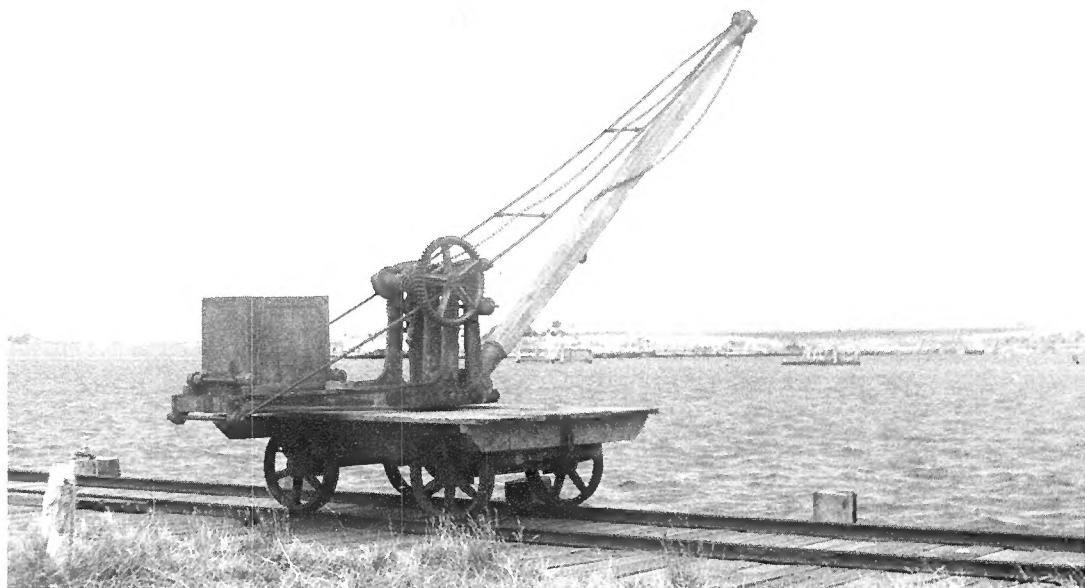


PLAN

### STANDARD JETTY TRUCK 3' 6" GAUGE.

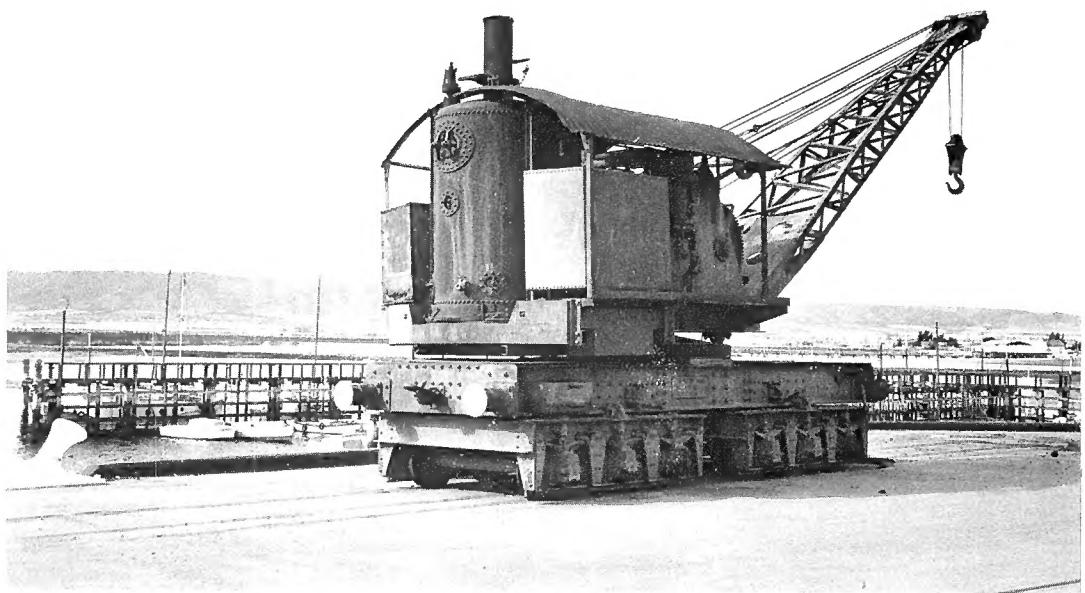
ENGINEER-IN-CHIEF'S OFFICE  
SOUTH AUSTRALIA 1882

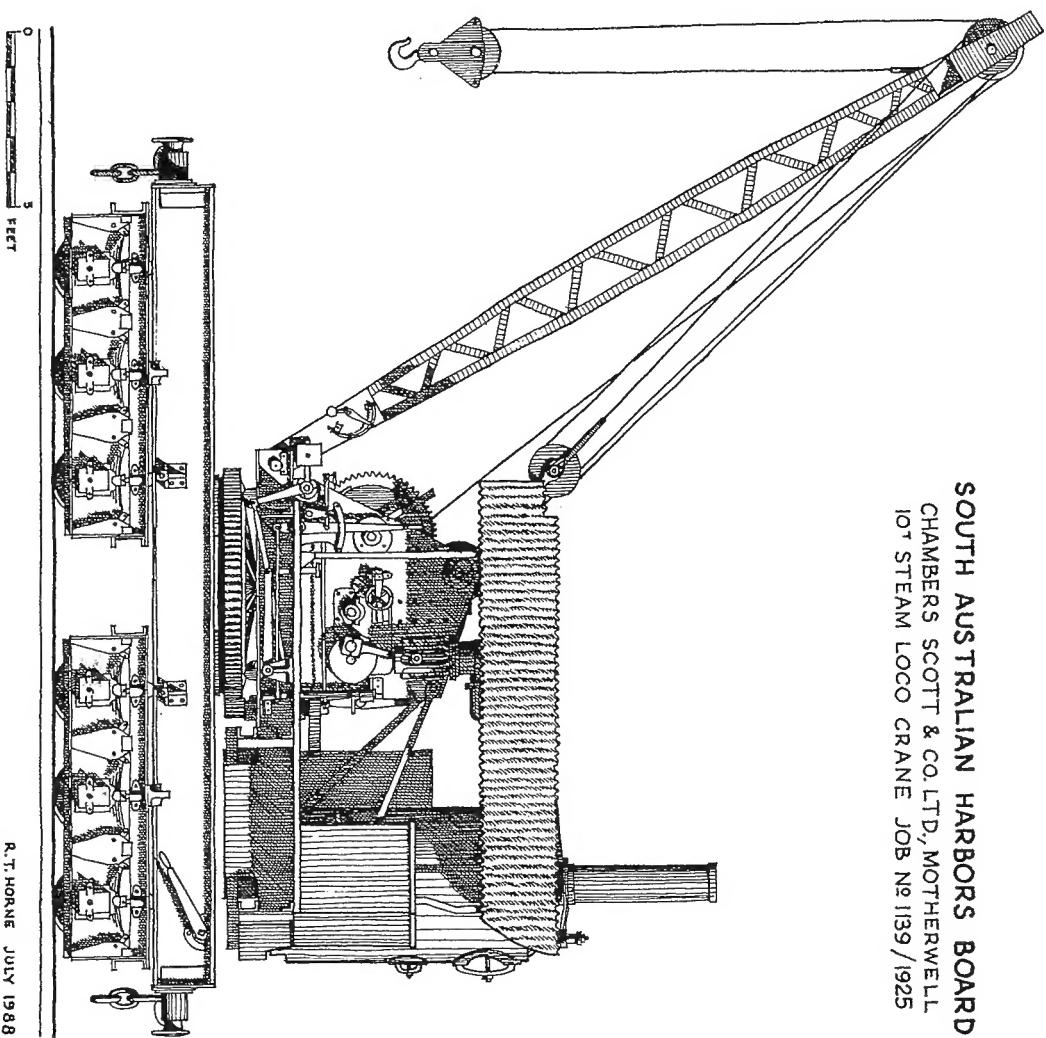
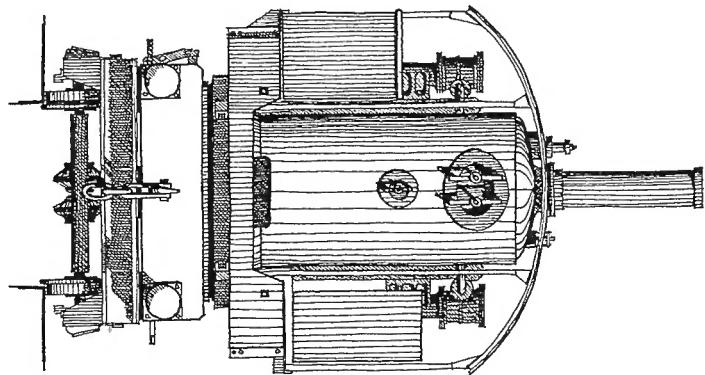
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R.T.HORNE 6-3-1988



Above: 4-wheel crane truck (wheels by Lloyd, Foster & Co). Goolwa Jetty. South Australia (5ft 3in gauge), 16 February 1962.

Below: Co-Co steam railway crane, RT Horne at Port Pirie, 18 May 1965.





**SOUTH AUSTRALIAN HARBORS BOARD**  
CHAMBERS SCOTT & CO. LTD., MOTHERWELL  
10' STEAM LOCO CRANE JOB N<sup>o</sup> 1139 / 1925

R. T. HORNE JULY 1988